LISTING OF CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Previously Amended): A method of reading data from a remote memory of a remote device to a local memory of a local device across a network, said method comprising:

sending a message from the local device to the remote device, via the network, said message including a transport header indicating a message type;

determining, at the remote device, if the transport header of said message identifies the message as a remote Direct Memory Access (rDMA) read operation; and

if the transport header of said message identifies the message as said remote Direct Memory Access (rDMA) read operation, then performing a remote Direct Memory Access (rDMA) write operation at the local device in accordance with data elements included in said message.

Claim 2 (Previously Amended): The method as claimed in claim 1, wherein the data elements in said rDMA read message identify a set of source buffers in the remote device which reference the remote memory and a set of destination buffers in the local device that reference the local memory.

Claim 3 (Previously Amended): The method as claimed in claim 2, wherein the source buffers and destination buffers are registered with a Virtual Interface (VI) network interface controller of the remote device and the local device, respectively.

Claim 4 (Previously Amended): The method as claimed in claim 3, wherein the data elements of the rDMA read message specify the source buffers and destination buffers as multiple data segments with offsets and designate a channel of the Virtual Interface (VI) as a data path for the rDMA write operation.

Claim 5 (Previously Amended): The method as claimed in claim 4, wherein one data element of the rDMA read message specifies a last data segment and completion of the rDMA read request.

Claim 6 (Previously Amended): The method as claimed in claim 5, wherein the data is read from the remote memory of the remote device directly into the local memory of the local device over the Virtual Interface (VI), without making an intermediate copy of the data.

Claim 7 (Previously Amended): The method as claimed in claim 6, wherein the remote device builds virtual interface rDMA write descriptors with a sequence inserted into an immediate data field on a last data segment of each rDMA read request.

Claim 8 (Previously Amended): The method as claimed in claim 7, wherein the completion of the data transfer is processed at the local device, based on the immediate data that arrives with the last data segment of each rDMA write operation by the remote device.

Claim 9 (Previously Amended): A network device initiating a method to read data in a remote memory of a remote device directly into a local memory, said network device having a network interface controller (NIC) configured to perform the following:

receiving a message from the remote device, via a network, said message including a transport header indicating a message type;

processing said message to determine if the transport header of said message identifies the message as a remote Direct Memory Access (rDMA) read operation; and

if the transport header of said message identifies the message as said remote Direct Memory Access (rDMA) read operation, then performing a remote Direct Memory Access (rDMA) write operation in accordance with data elements included in said message.

Claim 10 (Previously Amended): The network device as claimed in claim 9, wherein the data elements of the rDMA read message identify a set of

source buffers in the remote device which reference the remote memory and a set of destination buffers in the local device that reference the local memory.

Claim 11 (Previously Amended): The network device as claimed in claim 10, wherein the source buffers and destination buffers are registered with the network interface controller (NIC) of the remote device and the network device, respectively.

Claim 12 (Previously Amended): The network device as claimed in claim 11, wherein the data elements of the rDMA read message specify the source buffers and destination buffers as multiple data segments with offsets and designate a channel of a Virtual Interface (VI) as a data path for the rDMA write operation.

Claim 13 (Previously Amended): The network device as claimed in claim 12, wherein one data element of the rDMA read message specifies a last data segment and completion of the rDMA read request.

Claim 14 (Previously Amended): The network device as claimed in claim 13, wherein the data is read from the remote memory of the remote device directly into the local memory of the network device over the Virtual Interface (VI), without making an intermediate copy of the data.

Claim 15 (Previously Amended): The network device as claimed in claim 14, wherein the remote device builds rDMA write descriptors with a sequence inserted into an immediate data field on the last data segment of each rDMA read request.

Claim 16 (Previously Amended): The network device as claimed in claim 15, wherein the completion of the data transfer is processed based on the immediate data that arrives with the last data segment of each rDMA write operation by the remote device.

Claim 17 (Previously Amended): A tangible medium storing a plurality of program instructions, which, when executed by a processor installed in a network device, causes the network device to perform the following:

receiving a message from a remote device, via a network, said message including a transport header indicating a message type;

processing said message to determine if the transport header of said message identifies the message as a remote Direct Memory Access (rDMA) read operation; and

if the transport header of said message identifies that the message is said remote Direct Memory Access (rDMA) read operation, then performing a remote Direct Memory Access (rDMA) write operation in accordance with data elements included in said message.

Claim 18 (Previously Amended): The tangible medium as claimed in claim 17, wherein the data elements of the rDMA read message identify a set of source buffers in the remote device which reference a remote memory and a set of destination buffers in the network device that reference a local memory.

Claim 19 (Previously Amended): The tangible medium as claimed in claim 18, wherein the source buffers and destination buffers are registered with a network interface controller (NIC) of the remote device and the network device, respectively.

Claim 20 (Previously Amended): The tangible medium as claimed in claim 19, wherein the data elements of the rDMA read message specify the source buffers and destination buffers as multiple data segments with offsets and designate a channel of a Virtual Interface (VI) as a data path for the rDMA write operation.

Claim 21 (Previously Amended): The tangible medium as claimed in claim 20, wherein one data element of the rDMA read message specifies a last data segment and completion of the rDMA read request.

Claim 22 (Previously Amended): The tangible medium as claimed in claim 21, wherein the data is read from the remote memory of the remote device directly into the local memory of the network device over a Virtual Interface (VI), without making an intermediate copy of the data.

Claim 23 (Previously Amended): The tangible medium as claimed in claim 22, wherein the remote device builds virtual interface rDMA write descriptors with a sequence inserted into an immediate data field on the last data segment of each rDMA read request.

Claim 24 (Previously Amended): The tangible medium as claimed in claim 7, wherein the completion of the data transfer is processed based on the immediate data that arrives with the last data segment of each rDMA write operation by the remote device.